

REMARKS

Status of the Application

Claims 1-63 were pending. The Office Action rejected claims 1-3, 6-13, 15-19, 22-29, 31-37, 40, 43-53, 56 and 59-63. The Office Action objected to claims 4, 5, 14, 20, 21, 30, 38, 39, 41, 42, 54, 55, 57 and 58. By way of this amendment, claim 1 is amended and new claims 64 and 65 are added. Thus, claims 1-65 are now pending.

This response is submitted with a request for a 2-month extension of time and the requisite fee. Thus, the response is timely.

Allowable Subject Matter

Applicants appreciate the Examiner's recognition of the allowable subject matter of claims 4, 5, 14, 20, 21, 30, 38, 39, 41, 42, 54, 55, 57 and 58.

Claim Amendments

Claim 1 was amended to make the terminology used consistent. Applicants respectfully assert that this amendment is not narrowing. Also, new claims 64 and 65 were added.

Claim Rejections

Claims 1-3, 6-13, 15-19, 22-29, 31-37, 40, 43-53, 56 and 59-63 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,838,563 to Dove et al. (hereinafter "Dove") in view of U.S. Patent No. 6,665,648 to Brodersen et al. (hereinafter "Brodersen"). Applicants respectfully traverse this rejection because the Office Action failed to establish a prima facie case of obviousness at least because 1) the Office Action failed to

identify a motivation or suggestion to make the alleged combination, and 2) the alleged combination failed to render the claims unpatentable.

All of these claims generally relate to a function block, associated with a process plant, that implements a state machine or configuring such a function block. Dove describes a process control configuration system that allows a designer to design a process control module using function blocks and/or other process control modules. Dove, however, does not mention state machines let alone a function block for implementing a state machine. The Office Action appears to acknowledge this fact on p. 5: "Dove does not specifically teach the function block to implement a plurality of states for a state machine."

Brodersen, on the other hand, describes a system for preparing a state model of a process, the state model defining the behavior of logical industrial or business objects. An object may have permitted states and permitted transitions between the states. But Brodersen never mentions function blocks, let alone a function block for implementing a state machine.

In order to establish a prima facie case of obviousness, there must be a suggestion in the prior art to make the proposed combination. *See M.P.E.P.*, Section 2143.01; *see also, In re Rouffet*, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a prima facie case of obvious was held improper.). Here, the Office Action failed to identify a suggestion or motivation in the art to make the combination it proposes. In particular, the Office Action failed to identify a suggestion or motivation in the art to implement the state machine described in Brodersen as a function block. It is respectfully submitted that the mere fact that a reference can be modified is not sufficient to establish a prima facie case of obviousness. *See M.P.E.P.*, Section 2143.01 ("The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)").

The Office Action stated "[I]t would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the state machine of Brodersen with

the system of Dove because it would provide for the purpose of allowing end users to develop business applications customized to their needs.” *Office Action*, p. 5. Applicants respectfully submit that this is not a motivation to make a combination that renders the claims obvious. In particular, it is not a motivation to implement the state machine described in Brodersen as a function block. First, the description of Dove relates to a process control system for monitoring and/or manipulating control elements such as valves, switches, sensors, etc. It is unclear to the undersigned why one of ordinary skill in the art would be motivated to use the system described in Dove to “allow[] end users to develop business applications customized to their needs.” *Office Action*, p. 5. In other words, the asserted motivation is in fact not a motivation to combine because Dove does not describe using its system for developing business applications, and Brodersen does not suggest using a configuration system for configuring a system to control elements such as valves, switches, sensors, etc., to develop business applications.

Second, Dove describes a system for designing a process control module using predefined function blocks and/or other process control modules. In other words, Dove describes a system in which predefined function blocks are used to create process control modules. Thus, process control modules are higher level objects as compared to the predefined function blocks. Dove does not appear to teach or suggest what types of functions should be implemented as predefined function blocks. Additionally, because Brodersen does not even mention function blocks, it cannot be said that it teaches anything about implementing its state machine as a function block. Therefore, the Office Action failed to identify a suggestion or motivation to implement the state machine of Brodersen as a function block.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *See M.P.E.P.* Section 2143.03, *citing In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) (“All words in a claim must be considered in judging the patentability of that claim against the prior art.”). Here, the alleged combination of the Dove and Brodersen does not teach or suggest all of the limitations of the claims.

As discussed above, all of the rejected claims generally relate to a function block, associated with a process plant, that implements a state machine or configuring such a function block. Dove describes a process control configuration system that allows a designer to design a process control module using predefined function blocks and/or other process control modules. Dove does not appear to teach anything about what types of function should be implemented as function blocks. Rather, it merely describes a system for designing higher level process control modules using function blocks. Brodersen, on the other hand, describes a system for preparing a state model of a process, the state model defining the behavior of logical industrial or business objects. But there is nothing in Dove or Brodersen that teaches or suggests implementing a state machine as a function block.

At least for these reasons, a prima facie case of obviousness was established. Withdrawal of the rejection is respectfully requested.

Additional reasons for why a prima facie case of obviousness was not established with respect to specific claims are discussed below.

Claim 1

Claim 1 recites “providing a first graphical user interface via the display device to configure values of at least some outputs of a plurality of outputs of the function block for each of at least some states of a plurality of states of the state machine, wherein the first graphical user interface includes a plurality of graphical elements, wherein at least some graphical elements of the plurality of the graphical elements are associated with respective pairings of ones of the at least some states with ones of the at least some outputs.” The applied references do not disclose or suggest these elements, neither individually nor in combination.

With regard to Dove, the Office Action admitted that it does not disclose a function block to implement a state machine. *See Office Action* at p. 5. Thus, Dove cannot be said to disclose “providing a first graphical user interface via the display device to configure values of at least some outputs of a plurality of outputs of the function block for each of at least some states of a plurality of states of the state machine, wherein the first graphical user interface includes a plurality of graphical elements, wherein at least some

graphical elements of the plurality of the graphical elements are associated with respective pairings of ones of the at least some states with ones of the at least some outputs.”

With regard to Brodersen, it does not disclose “providing a first graphical user interface ... wherein the first graphical user interface includes a plurality of graphical elements, wherein at least some graphical elements of the plurality of the graphical elements are associated with respective pairings of ones of the at least some states with ones of the at least some outputs.” Fig. 3 of Brodersen is the only figure in Broderesen that purport to show a graphical user interface. Fig. 3 does not disclose graphical elements associated with “respective pairings of ones of the at least some states with ones of the at least some outputs” as recited in claim 1.

Thus, Dove and Brodersen do not disclose or suggest the above-identified elements of claim 1, neither individually nor in combination. Accordingly, the Office Action failed to establish a prima facie case of obviousness of claim 1 at least for this additional reason.

Claim 2

Claim 2 recites “wherein the plurality of graphical elements comprises a plurality of cells, wherein the cells of the plurality of cells are associated with respective pairings of ones of the at least some states with ones of the at least some outputs.” The applied references do not disclose or suggest these elements, neither individually nor in combination.

With regard to Dove, the Office Action admitted that it does not disclose a function block to implement a state machine. *See Office Action* at p. 5. Thus, Dove cannot be said to disclose “wherein the cells of the plurality of cells are associated with respective pairings of ones of the at least some states with ones of the at least some outputs.”

With regard to Brodersen, it does not disclose “wherein the cells of the plurality of cells are associated with respective pairings of ones of the at least some states with ones of the at least some outputs.” Fig. 3 of Brodersen is the only figure in Broderesen that purports to show a graphical user interface. Fig. 3 does not disclose graphical cells

associated with "respective pairings of ones of the at least some states with ones of the at least some outputs" as recited in claim 2.

Thus, Dove and Brodersen do not disclose or suggest the above-identified elements of claim 2, neither individually nor in combination. Accordingly, the Office Action failed to establish a prima facie case of obviousness of claim 2 at least for this additional reason.

Conclusion

In view of the above remarks, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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